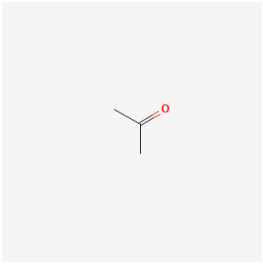
Technical Data Sheet

Acetone Technical Grade

Technical Grade

Alliance Code	Revised	Revision
acetone-technical-grade	2026-10-13	1.6

CAS number 67-64-1	UN number UN1090	Hazard class · packing group 3 · PG II
 Structure · PubChem	Grade Technical Grade	Signal word **Danger**
Hazards Flammable · Irritant / harmful · H225 H319 H336 EUH066		
Proper shipping name Acetone		

IDENTITY & COMPOSITION

PRODUCT NAME
Acetone Technical Grade

ALLIANCE CODE
acetone-technical-grade

GRADE
Technical Grade

CONCENTRATION
—

CAS NUMBER
67-64-1 PubChem

FORMULA
CH3COCH3 PubChem

MOLECULAR WEIGHT
58.08 PubChem

PRODUCT TYPE
Pure substance

SPECIFICATIONS

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Purity (assay, acetone)	99.5 min (wt% - wet basis)	—	GC	Interpreted
Aldehyde (As HCHO)	Max. 0.002%	—	—	Interpreted
Benzene	2 max (mg/kg)	—	GC	Interpreted
Distillation range	1 °C range including 56 °C	—	ASTM D1078	Interpreted
Conformance standard	Satisfies ASTM D329-07 test criteria	—	ASTM D329-07	Interpreted
Isopropyl alcohol	Max. 0.05 %	—	—	Interpreted
Permanganate stability (permanganate time)	120 min minimum (mins @ 25 °C)	—	ASTM D1363	Interpreted
Miscibility with water	No Opalescence	—	ASTM D1722	Interpreted
Water	0.5 max (wt%)	—	ASTM D1364 (Karl Fischer)	Interpreted
Titrable acid	Max. 0.0003 meq/g	—	—	Interpreted
Alkalinity (as NH3)	0.001 max (wt%)	—	ASTM D1614	Interpreted
Color (Pt-Co / APHA)	5 max (Pt-Co/APHA)	—	ASTM D5386 / D1209	Interpreted
Evaporation residue	Max. 0.001%	—	—	Interpreted

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Methanol	500 mg/kg max	—	—	Interpreted
Nvr	0.001 g/100mL max	—	—	Interpreted

Values are reproduced from the current product reference. Source labels do not by themselves establish a supplier guarantee or a test result for your lot. Confirm applicable acceptance limits and request lot-specific documentation.

AVAILABLE GRADES SAME CAS, ALTERNATE GRADES AND CONCENTRATIONS

GRADE	CONCENTRATION	TYPICAL ASSAY	SKU
THIS GRADE Technical Grade	—	—	current
ACS Grade	—	—	acetone-acs-grade

Typical assay for each grade is the average of its recent lots. Confirm a grade meets your specification before substituting it.

PHYSICAL & CHEMICAL PROPERTIES

PROPERTY	VALUE	SOURCE
Appearance	Clear colorless liquid	Adjudicated
Form	Liquid	Published reference
Odor	Sweet, fruity (characteristic ketone) odor	Adjudicated
Specific Gravity	0.79 at 20 °C (water = 1)	Adjudicated
Density	0.791 g/cm^3 at 68 °F (USCG, 1999)	Published reference
Boiling Point	56 °C (133 °F) at 760 mmHg	Adjudicated
Melting Point	-95 °C (-139 °F)	Adjudicated
Flash Point	-20 to -17 °C (-4 to 1 °F), closed cup	Adjudicated
Vapor Pressure	240–247 hPa (180–185 mmHg) at 20 °C	Adjudicated
Vapor Density	2.0 (air = 1)	Adjudicated
Solubility (water)	Completely miscible with water	Adjudicated
Viscosity	0.3 mPa·s at 25 °C	Adjudicated

Polar solvent — purity vs. intended end-use (electronics, pharma, general industrial) is the dominant grade consideration. See application guidance for grade selection.

MATERIALS OF CONSTRUCTION

MATERIAL	RATING	CONDITIONS	SOURCE
HDPE	Compatible	—	nwsci.com

Compatibility is drawn from published manufacturer and supplier documentation for this product; each rating is sourced. Confirm against your specific duty cycle before equipment selection.

REGULATORY & TRANSPORT

DOT / 49 CFR

UN NUMBER
UN1090 Adjudicated

HAZARD CLASS
3 Adjudicated

PACKING GROUP
II Adjudicated

PROPER SHIPPING NAME
Acetone Adjudicated

GHS / OSHA HCS 2024

SIGNAL WORD
Danger Adjudicated

H-CODES (HAZARD STATEMENTS)
H225, H319, H336, EUH066 ECHA C&L Inventory

P-CODES (PRECAUTIONARY STATEMENTS)
P210, P233, P240, P241, P242, P243, P261, P264, P271, P280, P303+P361+P353, P304+P340, P305+P351+P338, P312, P337+P313, P370+P378, P403+P233, P403+P235, P405, P501

ECHA C&L Inventory

OCCUPATIONAL EXPOSURE LIMITS

OSHA PEL (29 CFR 1910.1000)
1000 ppm TWA OSHA 29 CFR 1910.1000

ACGIH TLV
250 ppm TWA / 500 ppm STEL Adjudicated

NIOSH REL
250 ppm TWA NIOSH Pocket Guide

NIOSH IDLH
2500 ppm NIOSH Pocket Guide

Transport descriptions reflect 49 CFR 172.101 lookup at time of publication. Sourced data: NIOSH Pocket Guide for REL/IDLH, OSHA Z-Tables for PEL. Always verify against the latest regulatory text before shipment-critical decisions.

HEALTH & FIRE HAZARD

ACUTE TOXICOLOGY

LD_{50} ORAL (RAT)
5,800 mg/kg Adjudicated

LD_{50} DERMAL (RABBIT)
7,400–20,000 mg/kg

Adjudicated

LC_{50} INHALATION (RAT, 4 H)
76 mg/L (vapor) Adjudicated

Acute toxicology values from SDS Section 11 or NIOSH RTECS.

CATALOG EQUIVALENTS CROSS-REFERENCE VS MAJOR CHEMICAL SUPPLIERS

SIGMA-ALDRICH

SKU	GRADE	CONC.	MATCH	NOTES
179124	ACS Reagent	99.5%	Unverified candidate	ACS Reagent ≥99.5%

Cross-references are informational. Confirm against the manufacturer's current specification before substitution. Competitor trademarks are property of their respective owners.

APPLICATIONS

Industrial solvent: cleaning and degreasing, paint, coating and resin thinning, adhesive and fiberglass cleanup.

Adjudicated

Restrictions on Use: For industrial, professional and laboratory use. Not for ingestion, medicinal or food use.

STORAGE & HANDLING

RECOMMENDED STORAGE

Keep containers tightly closed in a cool, dry, well-ventilated flammables area away from heat, sparks, open flame and direct sunlight. Store in an area designed for flammable liquids and keep locked up. Ground and bond containers when transferring.

Adjudicated

HANDLING PRECAUTIONS

Use chemical-resistant gloves and splash goggles. Bond and ground during transfer to prevent static accumulation. Eliminate ignition sources within vapor envelope.

Class-level guidance — not product-specific; the SDS controls.

INCOMPATIBILITIES

Strong oxidizers (peroxides, nitric acid, perchlorates, chromic acid) — violent reaction; strong acids and strong bases; chloroform with bases; halogens.

Adjudicated

SHELF LIFE

Consult Technical Services for product-specific shelf life

For full hazard, PPE, and emergency response guidance, refer to the Safety Data Sheet (SDS) for this product. The SDS controls in all cases where guidance differs.

PACKAGING & LOGISTICS

SHIPPING DESCRIPTION (US DOT)

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UN1090, Acetone, 3, PG II
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Sourced from 49 CFR 172.101. Confirm against shipping documents and carrier requirements before tender.

NMFC CLASS	PLACARD	PACKING GROUP
70	Flammable Liquid	PG II

REVISION HISTORY

Last reviewed 2026-10-13 by Andre Taki, Chief Commercial Officer, DOT Hazmat–certified (49 CFR 172.704).

VERSION	DATE	CHANGE	TRIGGER
1.6	2026-10-13	Canonical data updated: 1 field changed via the provenance/adjudication pipeline. • storage_precautions · canonical change (coa.data_provenance / adjudication)	canonical_change
1.5	2026-10-07	Canonical data updated: 21 fields changed via the provenance/adjudication pipeline. • synonyms · canonical change (coa.data_provenance / adjudication) • odor · canonical change (coa.data_provenance / adjudication) • flashPoint · canonical change (coa.data_provenance / adjudication) • boilingPoint · canonical change (coa.data_provenance / adjudication) • meltingPoint · canonical change (coa.data_provenance / adjudication) • vaporPressure · canonical change (coa.data_provenance / adjudication) • vaporDensity · canonical change (coa.data_provenance / adjudication) • specificGravity · canonical change (coa.data_provenance / adjudication) • solubility · canonical change (coa.data_provenance / adjudication) • viscosity · canonical change (coa.data_provenance / adjudication) • explosiveLimits · canonical change (coa.data_provenance / adjudication) • autoIgnitionTemperature · canonical change (coa.data_provenance / adjudication) • oel_acgih_tlv · canonical change (coa.data_provenance / adjudication) • incompatible_materials · canonical change (coa.data_provenance / adjudication) • conditions_to_avoid · canonical change (coa.data_provenance / adjudication) • hazardous_decomposition_products · canonical change (coa.data_provenance / adjudication) • rcra_waste_codes · canonical change (coa.data_provenance / adjudication) • cercla_rq · canonical change (coa.data_provenance / adjudication) • dot_transport_note · canonical change (coa.data_provenance / adjudication) • recommended_use · canonical change (coa.data_provenance / adjudication) • restrictions_on_use · canonical change (coa.data_provenance / adjudication)	canonical_change
1.4	2026-10-05	Canonical data updated: 3 fields changed via the provenance/adjudication pipeline. • oel_niosh_rel · canonical change (coa.data_provenance / adjudication) • oel_idlh · canonical change (coa.data_provenance / adjudication) • oel_osha_pel · canonical change (coa.data_provenance / adjudication)	canonical_change
1.3	2026-09-30	Canonical data updated: 4 fields changed via the provenance/adjudication pipeline. • boilingPoint · canonical change (coa.data_provenance / adjudication) • meltingPoint · canonical change (coa.data_provenance / adjudication) • flashPoint · canonical change (coa.data_provenance / adjudication) • appearance · canonical change (coa.data_provenance / adjudication)	canonical_change

VERSION	DATE	CHANGE	TRIGGER
1.2	2026-07-22	Canonical data updated: 2 fields changed via the provenance/adjudication pipeline. • dotSubsidiaryHazardClass · canonical change (coa.data_provenance / adjudication) • dotProperShippingName · canonical change (coa.data_provenance / adjudication)	canonical_change
1.1	2026-06-18	Canonical data re-verified: 3 fields updated against independent vendor SDSs, CLP Annex VI, 49 CFR, and OSHA HazCom 2024 (GHS classification, hazard/precautionary codes, signal word, physical properties as applicable). • countryOfOrigin · canonical adjudication / reground (coa.data_provenance) • ghsClassification · canonical adjudication / reground (coa.data_provenance) • hsCode · canonical adjudication / reground (coa.data_provenance)	canonical_change
1.0	2026-05-20	Initial URL-first TDS published from canonical chemistry registry.	initial

This Technical Data Sheet is provided for technical reference. The Safety Data Sheet (SDS) controls in all cases where guidance differs. Values reflect Alliance Chemical canonical data at time of generation; subsequent revisions are recorded in the Revision History above.